UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,686	06/28/2006	Peter Mahr	PD040005	4988

24498 7590 04/13/2010

Robert D. Shedd, Patent Operations
THOMSON Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312

EXAMINER	
AGUSTIN, PETER VINCENT	
ART UNIT	PAPER NUMBER
2627	

MAIL DATE	DELIVERY MODE
04/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,686	MAHR ET AL.	
	Examiner	Art Unit	
	Peter Vincent Agustin	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,12 and 14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,12 and 14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on March 26, 2010 has been entered.

Allowable Subject Matter

2. The indicated allowability of claim 1 is withdrawn in view of the newly submitted reference to Tsuchiya et al. (Japan H01-253638). Rejections based on the newly cited reference follow.

Claim Objections

3. Claims 1, 12 & 14 are objected to because of the following informalities:

Claim 1, line 3: "the change" should be --a change--.

Claim 1, lines 9-10: "a track direction" should be --the track direction--.

Claim 12, last line: "classifying an abnormal region as belonging to the second group of types else" should be --otherwise classifying an abnormal region as belonging to the second group of types--.

Claim 14, line 1: "step" should be --steps--.

Claim 14, line 4: "a first group" should be --the first group--.

Claim 14, line 5: "the physical" should be --physical--.

Claim 14, line 7: "a second group" should be --the second group--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 8, 9, 12 & 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuchiya et al. (Japan H01-253638, please refer to English translation provided by examiner).

In regard to claim 1, Tsuchiya et al. disclose a method for analyzing an abnormal region on an optical recording medium (see title), including the steps of: detecting a change from a normal to an abnormal region (as shown in Figure 3); making a scan perpendicular to the track direction over the abnormal region in response to the detecting step until a normal region is reached at the end of the scan (page 9, paragraph 2: "a jump to the next inspection track is executed", see also Figure 3); obtaining information on the type of abnormal region during the scan by evaluating a track crossing signal (patent claim 3: "mutually different values are designated as the inspection standard value in relation to the size of the defect designated in the course of the track jump inspection"); determining the radial extension of the abnormal region perpendicular to the track direction (see Figure 3); and determining the type of the abnormal region based on the information obtained during the scan (page 6, paragraph 2: "defects sandwiched in-between adjacent inspection tracks", "grave defects such as stains, scratches, etc. spanning several dozen tracks").

In regard to claim 2, Tsuchiya et al. disclose that the step of determining the type of the abnormal region further includes: differentiating between a first group of types and a second group of types of abnormal region based on the obtained information (page 6, paragraph 2: "defects sandwiched in-between adjacent inspection tracks", "grave defects such as stains, scratches, etc. spanning several dozen tracks").

In regard to claim 3, Tsuchiya et al. disclose that the step of obtaining information on the type of abnormal region during the scan further includes evaluating a data signal obtained from the optical recording medium (page 5, paragraph 1: "generation of a signal defect(s) within the playback signal (RF)").

In regard to claim 4, Tsuchiya et al. disclose that the step of measuring the radial extension of the abnormal region includes measuring the time needed for scanning over the abnormal region (page 4, paragraph 2: "a detection pulse the width of which is contingent on the magnitude of said defect(s)").

In regard to claim 5, Tsuchiya et al. disclose jumping back to the start of the abnormal region; reading data stored in the abnormal region; and evaluating the data for determining the type of abnormal region (page 10, paragraphs 2-3: "re-inspection may be executed in terms of a jump scan past several tracks anterior & posterior to the defect-plagued track", "defect size inspection standard value").

In regard to claim 8, Tsuchiya et al. disclose storing the position, the radial extension and/or the type of the abnormal region on the optical recording medium (page 9, paragraph 1: "the defect generation positional data and their magnitudes are memorized into the positional information recording memory").

In regard to claim 9, Tsuchiya et al. disclose that the types of abnormal region include at least one of a groove region, a mirror region, a defect region, a wrong bitrate region and a wrong structure region (see title).

In regard to claim 12, Tsuchiya et al. disclose that the step of differentiating between a first group of types and a second group of types of abnormal region based on the obtained information includes: classifying an abnormal region as belonging to the first group of types if an evaluation of the abnormal region does only take a short time compared with the evaluation of the abnormal region in the second group of types; and otherwise classifying an abnormal region as belonging to the second group of types (page 4, paragraph 2: "a detection pulse the width of which is contingent on the magnitude of said defect(s)"; page 6, paragraph 2: "defects sandwiched in-between adjacent inspection tracks", "grave defects such as stains, scratches, etc. spanning several dozen tracks").

In regard to claim 14, Tsuchiya et al. disclose differentiating between a first group of types and a second group of types of abnormal region based on the obtained information, wherein an abnormal region is classified as belonging to the first group of types if the abnormalities of the detected signal are caused by physical characteristics of the recording medium (page 6, paragraph 2: "defects sandwiched in-between adjacent inspection tracks"); and an abnormal region is classified as belonging to the second group of types if the abnormalities of the detected signal are caused by erroneous data (page 5, paragraph 3: "grave defects within the playback signal (RF) serve as factors contributing to the non-coincidence of recording information and decoding information, namely bit errors and/or dropouts").

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 6 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al. in view of Shimote et al. (US 5,212,677).

For a description of Tsuchiya et al., see the rejections above. However, Tsuchiya et al. do not disclose: in regard to claim 6, that the step of evaluating the data for determining the type of abnormal region includes at least one of: evaluating a sync signal included in the data; and evaluating the data frequency in the abnormal region; and in regard to claim 7, that the step of measuring the radial extension of the abnormal region includes counting the number of wrong syncs in the abnormal region.

Shimote et al. disclose: in regard to claim 6, evaluating a sync signal included in the data (Figure 9: "sync/resync error"); and in regard to claim 7, counting the number of wrong syncs in an abnormal region (Figure 9: "sync/resync error").

It would have been obvious to one of ordinary skill in the art at the time of invention to have applied the teachings of Shimote et al. to the method of Tsuchiya et al., the motivation being to efficiently carry out defect inspection (see column 11, lines 58-64).

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is (571) 272-7567. The examiner can normally be reached on Monday-Thursday 8:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter Vincent Agustin/
Primary Examiner, Art Unit 2627